

REMARKS

Status of the Claims

Claims 1 and 13 are amended herein. Therefore, Claims 1, 3-11, and 13-22 are pending in the above-identified application. The amendments do not introduce new matter into this application. Support for the amendments is found throughout the specification, and can be found at least on page 8, lines 12-20.

Status of the Specification

The specification was objected to because bis(2,4-dicumylphenyl)pentaerythritol diphosphite, in several instances, is listed without the term "diphosphite." Applicants amended the specification to correct these clerical/typographical errors. In view of the amendments, Applicants assert that this objection is obviated and respectfully request that it be withdrawn. No new subject matter was added to this application in the foregoing amendment

Claim Objections

The PTO objected to Claim 1 with respect to the amount of the phenol compound. In view of the amendment to Claims 1 (and 13), Applicants assert that this objection is obviated and respectfully request that it be withdrawn. Support for this amendment is found on page 8, lines 12-20, of the specification.

Rejections Under 35 U.S.C. § 102(e)

Claims 1, 3-11, 13, 15-16, 18-20, and 22 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Numbers 6,156,845 to Saito et al. ("*Saito I*"); 6,231,804 to Yamauchi et al. ("*Yamauchi*"); or 6,313,225 to Saito et al. ("*Saito II*"). Claims 3-11, 13, 15-16, 18-20, and 22 depend directly or indirectly from Claim 1. In view of the remarks below, Applicants respectfully traverse this rejection.

As disclosed in independent Claim 1, the invention is directed to a polyolefin composition having high resistance to degradation. This composition comprises at least one polyolefin, bis(2,4-dicumylphenyl)pentaerythritol diphosphite, triisopropanolamine, at least one hydrotalcite component, and at least one phenol component. As claimed, the at least one polyolefin comprises a polymerization product of one or more monomers in the presence of a transition metal halide catalyst comprising a metal halide compound selected from metal dihalides or metal hydroxyhalides and a transition metal compound. On page 3 of the specification, lines 19-26, the meaning of metal halide compounds and transition metal compounds is defined to one of ordinary skill in the art by referring to U.S. Patent Nos. 4,325,837 and 4,394,291, which are attached hereto and made a part hereof.

On page 3 of the July 31, 2006, Office Action, Section 9, the PTO states that the U.S. Patents referred to on page 3, lines 19-26, of the specification are not incorporated by reference and that “[a]ny definitions of these compounds in other US Patents are not germane to the instant invention.” Respectfully, Applicants disagree.

As indicated in MPEP § 2173.02, “[d]efiniteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.”

Applicants assert that the meaning of metal halide compounds and transition metal compounds would be readily known to one of ordinary skill in the art. As MPEP § 2111.01 states, “[t]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*).< *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302, 67 USPQ2d 1438, 1441 (Fed. Cir. 2003); *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003)(“In

the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.”). It is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the “ordinary” and the “customary” meaning of the terms in the claims.”

To ensure that there was no ambiguity regarding the interpretation of what constitutes a metal halide compound and a transition metal compound, Applicants referred to two U.S. Patents to serve as the technical “**dictionary**” for these terms. MPEP § 2111.01 further states, “[t]he ordinary and customary meaning of a term may be evidenced by a variety of sources, ***>Phillips v. AWH Corp.*, [415] F.3d [1303], 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*),< including: the claims themselves, *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999); dictionaries and treatises, *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1818 (Fed. Cir. 2002); and the written description, the drawings, and the prosecution history, see, e.g., *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1324, 57 USPQ2d 1889, 1894 (Fed. Cir. 2001).”

Further, the pending application is a divisional of U.S. Patent Application Serial No. 09/357,257, now U.S. Patent 6,680,351. This issued patent used the same description of the transition metal halide catalyst, comprising a metal halide compound and a transition metal compound, and was deemed to be patentable and to meet all the requirements of 35 U.S.C. The examiner of record in that application is same as the examiner in the pending application.

Thus, as it pertains to the present invention, the **metal of the metal halide compound** of the present invention is a Group IIA/IIB metal, such as beryllium, magnesium, calcium, and zinc, for example. See U.S. Patent No. 4,325,837 on column 3, line 46, to column 4, line 8; and U.S. Patent No. 4,394,291 on column 2, lines 28-34. Likewise, the **metal of a transition metal compound** is a Group IVB/VB transition metal, such as titanium,

zirconium, and vanadium, for example. See U.S. Patent No. 4,325,837 on column 4, lines 37-51; and U.S. Patent 4,394,291 on column 2, line 52, to column 3, line 3.

The PTO maintains that *Saito I*, *Yamauchi*, and *Saito II* disclose a transition metal catalyst which includes titanium trichloride and titanium tetrachloride. See March 17, 2006, Office Action, on page 4, Section 9. According to the PTO, these compounds are both transition metal compounds and metal halides. However, as indicated above and in accordance with the specification of this application, titanium trichloride and titanium tetrachloride are defined **only as transition metal compounds and are not included as metal halides**. On page 2 of the July 31, 2006, Office Action, Section 5, the PTO states that *Saito I* discloses ethyl aluminum dichloride. Respectfully, ethyl aluminum dichloride does not fit Applicants' definition of a metal halide compound or a transition metal compound.

Thus, *Saito I*, *Yamauchi*, and *Saito II* do not teach or suggest a transition metal halide catalyst comprising a metal halide compound selected from metal dihalides or metal hydroxyhalides and a transition metal compound. Therefore, *Saito I*, *Yamauchi*, and *Saito II* fail to teach each and every element of the claimed invention. Accordingly, Applicants respectfully request that the rejection of Claims 1, 3-11, 13, 15-16, and 18-20 under 35 U.S.C. § 102(e) as being anticipated by *Saito I*, *Yamauchi*, or *Saito II* be withdrawn.

Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3-11, and 13-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Saito I*, *Yamauchi*, *Saito II*, in view of U.S. Patent Nos. 5,179,063 to Harris et al. ("*Harris*") or 5,001,176 to Nakazima, further in view of U.S. Patent Nos. 3,981,957 to van Brederode et al. ("*van Brederode*") or 4,197,398 to Floyd et al. ("*Floyd*"). Claims 3-11 and 13-22 depend either directly or indirectly from Claim 1. Respectfully, Applicants traverse this rejection.

As discussed above, the invention of Claim 1 is directed to a polyolefin composition having high resistance to degradation. This composition comprises at least one polyolefin, bis(2,4-dicumylphenyl)pentaerythritol diphosphite, triisopropanolamine, at least one

hydrotalcite component, and at least one phenol component. As claimed, the at least one polyolefin comprises a polymerization product of one or more monomers in the presence of a transition metal halide catalyst comprising a metal halide compound selected from metal dihalides or metal hydroxyhalides and a transition metal compound.

As indicated above, and as it pertains to the present invention, the **metal of the metal halide compound** of the present invention is a Group IIA/IIB metal, such as beryllium, magnesium, calcium, and zinc, for example. See U.S. Patent No. 4,325,837 on column 3, line 46, to column 4, line 8; and U.S. Patent No. 4,394,291 on column 2, lines 28-34. Likewise, the **metal of a transition metal compound** is a Group IVB/VB transition metal, such as titanium, zirconium, and vanadium, for example. See U.S. Patent No. 4,325,837 on column 4, lines 37-51; and U.S. Patent 4,394,291 on column 2, line 52, to column 3, line 3.

According to the PTO, *Harris* discusses hydrotalcites as halogen scavengers; *Nakazima* discusses halogen scavengers and hydrotalcites; *van Brederode* discusses titanium dichloride, titanium trichloride, and titanium tetrachloride; and, *Floyd* discusses titanium dichloride, titanium trichloride, and titanium tetrachloride. See March 17, 2006, Office Action, on page 5, Section 13. The titanium dichloride, trichloride, and titanium tetrachloride compounds of *van Brederode* and *Floyd*, as defined in the specification of the above-identified application, are **only transition metal compounds and not included as metal halides**.

Respectfully, neither *Harris*, *Nakazima*, *van Brederode*, nor *Floyd* teach or suggest a polyolefin composition as claimed in Claim 1. As stated above, the transition metal halide catalyst of the present invention comprises a metal halide compound selected from metal dihalides or metal hydroxyhalides and a transition metal compound. No reference of record, either alone or in combination, teaches or suggests the composition of the claimed invention. Thus, *Harris*, *Nakazima*, *van Brederode*, and *Floyd* all fail to remedy the deficiencies of *Saito I*, *Yamauchi*, and *Saito II* to suggest each and every element of the claimed invention. Accordingly, Applicants respectfully request that the rejection of Claims 1, 3-11, and 13-22

under 35 U.S.C. § 103(a) over *Saito I*, *Yamauchi*, *Saito II*, in view of *Harris* and *Nakazima*, further in view of *van Brederode* and *Floyd*, be withdrawn.

CONCLUSION

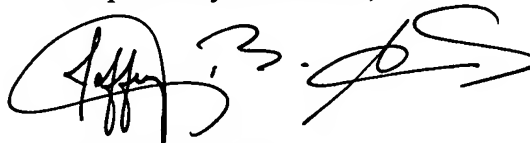
The foregoing is submitted as a full and complete amendment and response to the Final Office Action dated July 31, 2006. For at least the reasons given above, Applicants respectfully submit that Claims 1, 3-11, and 13-22 define patentable subject matter. Accordingly, Applicants request allowance of these claims.

This Amendment and Response is being filed within two (2) months of the final action, therefore Applicants request that an Advisory Action be issued in this case.

No fees are believed due, however, the Commissioner is hereby authorized to charge any deficiencies which may be required, or credit any overpayment to Deposit Order Account No. 09-0528.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jeffery B. Arnold', with a stylized flourish extending to the right.

By: Jeffery B. Arnold
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